

**Amendments to the Claims:**

This listing of the claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1 (currently amended). Catheter (1) having a catheter body (2), the interior of which forms a first catheter lumen (4), which serves to accommodate a guide wire (15) during the introduction of the catheter into the body of a patient, having at least one partition (5) disposed in the interior, which divides off at least one further catheter lumen (6) in the interior, said further catheter lumen (6) having a round cross-sectional area (F2),  
wherein said partition runs in arc shape over at least one section thereof and has a convex side facing the first catheter lumen (4), and a concave side facing the further catheter lumen (6)

wherein the catheter body (2) has a tubular outer wall (3) and the cross-sectional area (F2) of the further catheter lumen (6)

is smaller than the cross-sectional area (F1) of the first catheter lumen (4), and the further catheter lumen (6) is disposed in such a manner that it has a wall section (7) that is part of the tubular outer wall (3), and wherein the cross-sectional area (F1) of the first catheter lumen (4) and the cross-sectional area (F2) of the further catheter lumen (6) have a common axis of symmetry in the cross-sectional plane, and the quotient of the cross-sectional area (F1) of the first catheter lumen (4) and the cross-sectional area (F2) of the further catheter lumen (6) is greater than the square of the quotients of the width (D1) of the first catheter lumen (4), measured along the common axis of symmetry, and the width (D2) of the further catheter lumen (6), measured along the common axis of symmetry.

Claims 2-4 (canceled).

Claim 5 (previously presented): Catheter according to claim 1, wherein the cross-sectional area (F1) of the first catheter lumen (4) has a rounded sickle shape.

Claim 6 (canceled).

Claim 7 (previously presented): Catheter according to claim 1, wherein a temperature sensor is disposed in the further catheter lumen (6).

Claim 8 (previously presented): Catheter according to claim 7, wherein the temperature sensor is disposed in the vicinity of the catheter tip (9).

Claim 9 (previously presented): Catheter according to claim 7, wherein the cross-sectional area of the temperature sensor fills the cross-sectional area of the further catheter lumen (6) by at least four-fifths.

Claim 10 (previously presented): Catheter according to claim 7, wherein the cross-sectional area of the temperature sensor fills the cross-sectional area of the further catheter lumen (6) completely.

Claim 11 (previously presented): Catheter according to claim 1, wherein an optical fiber sensor is disposed in the further catheter lumen (6).

Claims 12-13 (canceled).

Claim 14 (previously presented): Catheter according to claim 1, wherein the catheter body is made from plastic having a Shore hardness of 60D to 85D.

Claim 15 (previously presented): Catheter according to claim 14, wherein the plastic is polyurethane.

Claim 16 (previously presented): Catheter system according to claim 1, having a guide wire (15), wherein the guide wire (15) has a diameter that amounts to 65% to 95% of the distance (D1) between the partition (5) and the outer wall (3).